# The MANITOBA HYDRO-ELECTRIC BOARD

## 34th ANNUAL REPORT

for the year ended
March 31, 1985

manitoba hydro

85-37377

Manitoba Hydro is a Crown Corporation owned by the Province of Manitoba. Its purpose is "to provide for the continuance of a supply of power adequate for the needs of the Province ... and to promote economy and efficiency in the generation, distribution, supply and use of power."

This annual report, including the audited statements, is prepared in accordance with the Manitoba Hydro Act. It is intended for the information of customers, bondholders and others who may have an interest in the business of the Corporation.

## HIGHLIGHTS

### FINANCIAL

- Gross Revenues: $506.4 million
- Total Expenses: $495.3 million
- Revenues in excess of Expenses: $11.1 million
- Extraprovincial Revenues: $103.2 million
- Energy Sales within Province: $397.5 million
- Finance Expense: $242.5 million
- Reserves: $93.6 million
- Additions to Fixed Assets: $122.9 million

### OPERATING

**(Integrated System)**

- Manitoba firm energy supply: 14 993 million kilowatt-hours (an increase of 4.2% and highest level of firm generation requirements on record)
- Manitoba peak load: 2 952 megawatts (an increase of 2.2% and the highest level of demand on record ... first time system peak recorded on a Saturday)
- Total generation: 21.3 billion kilowatt-hours

**(Manitoba Hydro)**

- Energy sold to Manitoba customers: 12.3 billion kilowatt-hours
- Number of customers: 299 611
- Peak number of employees: 3 805

### OTHER

- License approval received to supply 500 megawatts of firm power to Northern States Power for 12-year period, beginning in 1993
- Announcement of commitment to proceed with construction of Limestone Generating Station
- Establishment of Corporate Affairs department to focus on northern interests and enhance the utility's affirmative action program
- Commencement of work on Churchill transmission line
- Two northern communities connected to central supply
- Worst ice storm in Corporation's history; repair costs to date $4.1 million
- Announcement of $25 million program to combat ice storms
- Twenty-two kilometres of overhead distribution lines in ice storm prone area replaced by underground cable


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# MANITOBA HYDRO

M. ELIESEN
CHAIRPERSON
BOARD OF DIRECTORS

P.O. BOX 815 • WINNIPEG, MANITOBA R3C 2P4

*1985 06 27*

*The Honourable W. Parasiuk*
*Minister responsible for*
*the administration of*
*The Manitoba Hydro Act*
*Province of Manitoba*
*Legislative Building*
*Winnipeg, Manitoba*
*R3C 0V8*

*Sir:*

*I have the honour of presenting the Thirty-fourth Annual Report of The Manitoba Hydro-Electric Board together with financial statements for the fiscal year ended March 31, 1985.*

*Respectfully submitted,*

*M. Eliesen*

*Marc Eliesen*
*Chairperson*
*Board of Directors*
*Manitoba Hydro-Electric Board*

## Members of
## The Manitoba Hydro-Electric Board

**Clockwise from bottom left:** *Rod J. Beaudry; Bill E. Cheater; Saul M. Cherniack, P.C., Q.C.; Charles E. Curtis, Vice-Chairman; Peter Fox, M.L.A.; Dr. Edmund Kuffel; Jack R. London; Dr. Nora E. Losey; Clyde R. McBain; Roy Minish.*

*Marc Eliesen, Chairperson*

Manitoba Hydro is on the threshold of a decade of hydro-electric development which promises widespread benefits to the people of Manitoba.

In June of 1984, Manitoba Hydro together with the Manitoba Energy Authority signed a contract for the sale of 500 megawatts of power to the Northern States Power Company of Minneapolis, for a 12-year period, beginning in 1993. The National Energy Board (N.E.B.) has approved the sale which is expected to produce revenues of $3.2 billion. Of this amount, about $ 1.7 billion is estimated to be profit that will be used in part to maintain Manitoba Hydro's rate structure below that of nearly every other utility in North America.

The N.E.B. approval also provided the catalyst for the startup of construction on the Limestone Generating Station. In addition to the profits that will accrue from expanded export sales, economic benefits will flow from the construction program, stimulating business activity and creating thousands of jobs for Manitobans.

Manitoba Hydro will work with government and community representatives to fulfill social, economic and environmental goals relating to major construction programs such as Limestone. The focus will be on maximum northern involvement. Although judicious discretion will be exercised to benefit Manitoba firms and industries, competitive pricing will remain Manitoba Hydro's first principle in its purchasing and tendering practices.

Developments such as these auger well for the future of both the utility and the Province. The bright outlook owes much to the hard work, dedication and leadership of Saul Cherniack, P.C., Q.C., Chairman of the Manitoba Hydro-Electric Board over the last three years. His efforts are very much respected and appreciated.

On behalf of the Board, I would like to acknowledge the continuing support of the Government of Manitoba and Manitoba Hydro's reporting Minister, the Honourable Wilson Parasiuk.

As Manitoba Hydro positions itself to meet future challenges, the citizens of Manitoba will still enjoy low hydro rates while sharing in the socio-economic benefits that come with the prudent development of Manitoba's vast hydro-electric resources.

M. Eliesen

**Marc Eliesen**
Chairperson
Board of Directors
Manitoba Hydro-Electric Board

I am pleased to be able to report net income of $11.1 million on the year's operations — the first surplus in five years. It was also the first time in Manitoba Hydro's history that total revenues exceeded $500 million in any one year.

The largest variable in the utility's financial forecast, which is based on average flows, is the availability of adequate water supplies. The impact on revenues between a year of average water conditions followed by low flows for two consecutive years would be in the order of $200 million.

The Corporation's financial reserves act as a buffer against such fluctuations and assist in maintaining rate stability during periods of major additions to generation and transmission systems. In order to maintain adequate levels of reserves, and to meet ever-increasing costs, a rate strategy has been developed that will provide for nominal rate increases at yearly intervals. The Manitoba Hydro-Electric Board has approved a new rate schedule, effective April 1, 1985, that will result in 5% additional revenues to the Corporation. Our projections indicate that electrical energy rates in Manitoba will continue to be amongst the lowest in North America.

The amount of energy delivered to extraprovincial markets this year was down by 15.6%, due to lower hydraulic generation and higher than expected sales in Manitoba; however, prices were higher than forecast, resulting in total export revenues of $103 million — or about 20% of the Corporation's total revenues.

Manitoba Hydro has always been a major component in the socio-economic framework of the province. During the year, a Corporate Affairs department was established to develop and implement affirmative action programs that will provide opportunities to those not previously represented in Manitoba Hydro's workforce in significant numbers.

Manitoba Hydro's enviable safety record remains a source of pride. Safety and the Corporation's emphasis on customer service will continue to be reinforced at every opportunity.

I would like to pay tribute to Manitoba Hydro's dedicated staff throughout the province who function as a team to ensure the utility's obligations to its customers and high standards of service reliability are sustained — even under sometimes hazardous and trying conditions. In good times or bad, the utility's staff are a credit to Manitoba Hydro.

J J Arnason

**John J. Arnason**
President & Chief Executive Officer

**MURRAY FRASER**
Executive Vice-President, Corporate Services

"In many respects, Manitoba Hydro is a business like any other business. While our primary function of producing and distributing electricity throughout the province is well-known, there also exists an infrastructure of talented employees, working behind the scenes to contribute to Manitoba Hydro's overall purpose. These people don't always get the recognition they deserve but Manitobans can be assured that they are being well-served by dedicated fellow citizens, carrying out a multitude of activities in a number of valuable supporting roles."

**DON DUNCAN**
Vice-President, Engineering and Construction

"Manitoba Hydro is blessed with proven expertise in both the engineering and construction fields. Our staff look forward to the challenge of building Limestone and to the design and construction of other elements of system expansion. The use of their skills means that Manitoba Hydro's customers will continue to be provided with dependable low-cost electrical energy, generated and transmitted by facilities that have been built in the most efficient manner."

**RALPH LAMBERT**
Vice-President, Customer Service

"The Customer Service group in Manitoba Hydro is dedicated to providing reliable electric service and to conducting the utility's business in a fair and equitable manner. That we have been successful in carrying out this commitment is reflected in the positive feedback we receive from our customers. These are responsibilities that we do not undertake lightly and we shall continue to seek ways of building on our strengths in order to improve even further on the service we provide."

**WILL TISHINSKI**
Vice-President, System Planning & Operations

"As owners, Manitobans have a right to expect that the assets of Manitoba Hydro are administered efficiently. I believe that Manitoba Hydro will continue to keep pace with technological advances in the world so that our electrical system can be developed and operated in the most economical and productive manner, assuring our customers of the lowest possible power rates for years to come."

## BUSINESS OF MANITOBA HYDRO

Manitoba Hydro distributes electricity to consumers throughout the province except for the central portion of the City of Winnipeg, which is served by the city-owned Winnipeg Hydro. Manitoba Hydro and Winnipeg Hydro operate as an integrated electrical generation and transmission system.

By agreement, Winnipeg Hydro is assessed a share of the costs of the integrated system and is allocated a share of extraprovincial revenue based on its proportion of the total Manitoba system peak demand and energy needs.

The Manitoba Hydro system at year-end was interconnected with Ontario Hydro by two 230 000 volt lines and one 115 000 volt line; with Saskatchewan Power Corporation by three 230 000 volt lines and two 115 000 volt lines; and with utilities in the United States by one 500 000 volt line and two 230 000 volt lines.

## CUSTOMER SERVICE

Manitoba Hydro's service area encompasses a territory of 130 000 square kilometres. To provide more effective customer service, the total area is divided into three geographical regions. The offices of the Western Region, Central Region and Eastern Region are located in Brandon, Winnipeg and Selkirk respectively. Each region is responsible for planning, designing, constructing, operating and maintaining the electrical distribution system in its own area.

Manitoba Hydro residential and farm customers numbered 299 611 at March 31, 1985, an increase of 2.0% from the previous year. Power and general service customers increased by 1.5% to 40 547.

Approximately 6 500 residences were connected to the system during the year of which 35.0% were heated electrically. 4 600 other residences were converted to electric heating over the year, making a total of 74 500 electrically heated single family residences, including 27 000 apartment units, in the Manitoba Hydro service area.

Manitoba Hydro continued to provide or administer programs to promote the efficient use of energy. Manitoba Hydro's Electric Heating Program assists customers in converting to electric heating and the Electrical Modernization Plan is designed to encourage improvements to customers' electrical systems.

The provincial government's Home Chec-Up energy analysis program, administered by Manitoba Hydro, continued to be popular. Approximately 4 000 homeowners had the energy efficiency of their residences evaluated by trained energy advisors. The government's Chec Loan Program which is also administered by Manitoba Hydro provided approximately 4 700 homeowners with low interest loans for retrofitting purposes.

On April 27, for the second time in a 13-month period, southern Manitoba was hit by a major spring ice storm which caused widespread interruptions in electrical service. The storm proved to be the most costly in Manitoba Hydro's history. So far, repair costs have totalled $4.1 million.

## OPERATIONS

Including purchases, the total energy supplied to meet Manitoba and extraprovincial loads was 21 408 million kilowatt-hours, a decrease of 3.0% from the 22 080 million kilowatt-hours supplied in the previous year. The reduction was due to diminished water flows.

Nelson River plants contributed the greatest amount, supplying 73.9% of all energy requirements. The High Voltage Direct Current System transmitted 13 014 million kilowatt-hours which was 61.1% of the electricity generated in Manitoba during the year.

Manitoba's maximum firm peak load during the fiscal year established an all-time record peak for the utility when 2 952 megawatts were required to meet customer demand on Saturday, January 19, 1985 at 5:48 p.m. This marked a 2.2% increase over the firm peak of 2 889 megawatts recorded in the previous year. It was the first time that a system peak had been recorded on a Saturday.

Firm energy required to supply Manitoba customers totalled 14 993 million kilowatt-hours, an increase of 4.2% over the previous year and the highest level of firm generation requirements on record.

Energy delivered to extraprovincial markets totalled 5 767 million kilowatt-hours, down 15.6% from the previous year. The decrease was attributed to a general reduction in water conditions and an overall increase in electricity consumption throughout the province.

Supply of diesel-electric energy to isolated northern communities totalled 46.5 million kilowatt-hours, a decrease of 3.1%, reflecting the transfer of the community of Berens River to central supply during the previous year.

RMS ARE NOT NICE STORMS

## SYSTEM DEVELOPMENTS

During the year, a commitment was made to proceed with the construction of the Limestone Generating Station, beginning in 1985. The first units will go into service in 1990. When completed, Limestone will provide a net capacity addition of 1 280 megawatts to the system.

To allow potential General Civil contractors to view the Limestone site, the Stage 1 cofferdam was dewatered. Specifications were prepared and issued for tender for the General Civil contract as well as for several other contracts.

Planning studies continued for the development of the Conawapa Generating Station on the lower Nelson; Wuskwatim, Manasan, and First Rapids Generating Stations on the Burntwood River; and Whitemud Generating Station on the upper Nelson. Work continued to permit comparisons among various alternatives for development after Limestone.

Rehabilitation work continued in the Great Falls Generating Station, including a retrofit of Unit 1 to achieve improved output efficiency and reliability. In addition, the reinforcing and repairing of Unit 1 headgates was completed.

The access road to the Town of Churchill's pumphouse was upgraded to keep the road above spring water levels. Also, to ensure access during times of spring flooding and to facilitate fish spawning in the area, a new bridge was constructed over Goose Creek. The pumphouse was built by Manitoba Hydro as part of the Churchill River Diversion project.

A new staffhouse at Jenpeg was completed; it now accommodates the staff who commute from Winnipeg or elsewhere to operate the station on an eight-day in, six-day out basis.

A new building was constructed at Gillam to accommodate Gillam Services and Gillam District Office operating functions. Stores and workshops for employees associated with the operation and maintenance of the Corporation's properties and buildings have been relocated from the former Kettle Generating Station construction campsite into this new building.

## HVDC TRANSMISSION

Work continued on the doubling of the capacity of the present HVDC Converter Station Bipole 2 facilities from 900 megawatts to 1 800 megawatts. During the year, 450 megawatts of capacity were added. When completed, the total capacity of the Nelson River DC transmission line will be increased to 3 420 megawatts, thereby improving the reliability and performance of the HVDC transmission system. The entire facility will be capable of transmitting the output of the Limestone Station without any additional requirement for system upgrading.

Manitoba Hydro is continuing work on two major research projects with the Manitoba HVDC Research Centre. For the first project, digital computer programs on the study of multi-terminal HVDC systems have been completed and work is underway on the development of system planning guidelines for multi-terminal HVDC systems. Work will continue until the fall of 1985.

The second project involves the long-term statistical measurement and analysis of corona-related phenomena on the Nelson River HVDC lines.

## AC TRANSMISSION & DISTRIBUTION

Right of way clearing began on a 270 kilometre, 138 000 volt AC transmission line between Gillam and Churchill. Scheduled for service in May 1987, the line will provide central system supply to Churchill, replacing the present diesel service. Work has also begun on a 138 000 - 12 000 volt transformer station at Churchill and on additions to Radisson Station where the line will originate. The cost of the project is being shared with the Federal and Provincial governments.

The Manitoba Forestry Resources Ltd. paper mill at The Pas was connected to a new 230 000 volt service by tapping the line that runs from The Pas to Flin Flon. This replaced the old 12 000 volt supply which had become inadequate due to load increases.

Transformer capacity was added to the major stations of Reston, Roblin South, and Flin Flon - Ross Lake.

Work continued on the five-year program to connect communities east of Lake Winnipeg to central supply. During the year, a 66 000 volt line was constructed from Pine Falls to Manigotagan to ensure adequate capacity for the anticipated load.

The communities of Pukatawagan and Granville Lake were connected to central supply.

In conjunction with highway improvements, 68.8 kilometres of distribution line and 14.25 kilometres of sub-transmission line were relocated.

A 22 kilometre stretch of 25 000 volt rural underground distribution line was installed in the ice storm prone area between Elie and Cabot stations, replacing existing overhead lines.

Distribution systems in the Glenboro, Forrest, and Wellwood areas were converted from 8 320 volts to 24 900 volts.

Manitoba Hydro has been actively involved in the design specification and installation of ornamental street lighting for about 20 designated communities that are part of the provincially-funded Main Street Manitoba Program which sets out to revitalize the business districts of small cities, towns, and villages.

A number of modular towers were purchased to provide for emergency repairs for transmission lines. These towers will reduce the time required to place a failed transmission line back into service on a temporary basis as a result of damage to existing structures.

As well, a footing tensioner, designed and manufactured to test footings on self-supporting towers, has been utilized over the past two summers as part of the Tower Leg Testing Program. In being able to identify failed footings on towers by using this device, it is estimated that the Corporation has realized a saving of approximately one million dollars.

## INTERCONNECTIONS

Under the terms of the Manitoba Energy Authority Act of 1980, the negotiation of electricity sales in the export market became the responsibility of the Manitoba Energy Authority (MEA). Manitoba Hydro provides technical, financial, and economic expertise to assist with the negotiations.

The National Energy Board approved a licence to the Manitoba Hydro-Electric Board for the export of 500 megawatts of firm power to the Northern States Power Company of Minneapolis, Minnesota for a 12-year period, beginning May 1, 1993.

On March 29, 1985, citing insufficient participation by U.S. utilities, the Board of the Nebraska Public Power District passed a resolution that called for termination of all work on the proposed MANDAN transmission line. Manitoba Hydro accepted the decision with regret.

Various other U.S. utilities have also expressed an interest in purchasing electrical energy from Manitoba Hydro in the 1990s. These include the Wismintoba group comprising eastern Wisconsin utilities and two Minnesota utilities, the Minnesota Wisconsin Powers Users Group consisting of Minnesota and western Wisconsin utilities, and the Western Area Power Administration which generates and distributes power throughout the western U.S.

In March 1985, agreement was reached with Ontario Hydro to prepare a Letter of Intent for the sale of power, beginning in the mid to late 1990s. Consideration will be given to long-term sales, ranging between 300 and 1 100 megawatts.

Discussion and transmission studies with Saskatchewan Power Corporation (SPC) continue on the possible sale of 300 megawatts of firm power for a 10 to 15 year period.

During the past year, Manitoba Hydro and SPC formalized the use of Manitoba Hydro's transmission facilities to transfer power from the Island Falls Generating Station to SPC's transmission system by signing the Island Falls Power and Energy Transfer Agreement.

## EXPORT SERVICES

Manitoba Hydro, along with other Canadian utilities and the Federal and Provincial governments, has contacted various organizations of consultants, manufacturers and contractors to devolop a strategy for jointly exporting management and technical skills and training.

Manitoba Hydro will be a subcontractor to B.C. Hydro who won a contract with the Peoples Republic of China to manage an HVDC transmission technology transfer project.

Further opportunities for export services are being pursued in China and India and other countries including Zimbabwe, Egypt, Nigeria and Turkey.

## AFFIRMATIVE ACTION

In recognition of Manitoba Hydro's serious commitment to northern interests and to a program of affirmative action which will allow northerners — especially those of native ancestry — to participate more extensively in and benefit more fully from northern development, a new Corporate Affairs department was established. The focus of the new department is on northern projects. Major functions relate to resource impacts, community relations, affirmative action and the development of business opportunities. In the past fiscal year, over $3 million worth of contracts with native businesses, communities and private individuals were awarded which included about 12.6 work-years of employment.

The Board has approved a bursary program to encourage women and individuals of native ancestry to pursue engineering-related career opportunities. Qualified applicants will receive financial assistance towards Engineering studies at the University of Manitoba or technology programs at the community college level.

Manitoba Hydro will also cooperate with provincial government agencies in establishing pre-technical preparation for native students lacking high school Physics and Mathematics who are thereby precluded from qualifying for line and electrical trades employment in the utility.

The Hydro Projects Management Association and the Allied Hydro Council negotiated amendments in several areas in the Nelson/Burntwood Collective Agreement. The most significant amendment was the introduction of special employment measures for northern residents of native ancestry which include the establishment of employment goals in certain major occupational groupings. Because of the nature of these provisions, approval was obtained from the Manitoba Human Rights Commission to implement the special measures.

## MITIGATION

Since 1979, Manitoba Hydro has received a total of 1 350 claims from individuals covered by the Northern Flood Agreement for damage or loss resulting from northern hydro projects. Manitoba Hydro has settled 1 218 claims; 82 claims are still under investigation and 50 have been rejected.

One hundred and twenty-seven arbitration claims against the Corporation have been served on Manitoba Hydro. Six of these claims have been heard by the Arbitrator; 59 have been settled outside the arbitration process; one has been discontinued. Negotiations continued during the year in an effort to formulate settlements for the remaining claims.

Benefits amounting to more than $21 million have been provided to the five Indian Bands who are signatories to the Northern Flood Agreement.

## SAFETY

For the 21st consecutive year, the Corporation's overall safety record ranked among the top three of the 14 major Canadian electrical utilities during the 1984 calendar year. Manitoba Hydro placed second in the category combining normal electric utility operations and heavy construction operations. The number of disabling injuries per million man-hours worked was 5.8, up from 5.16 recorded the previous year.

The frequency rate for preventable motor vehicle accidents in the Corporate fleet was 2.6 accidents per million kilometres driven, giving Manitoba Hydro a first place ranking in this category.

There was one on-the-job fatality during the year and one permanent total disability. The fatality involved a non-electrical accident in which a Hydro employee lost his life in a vehicle collision.

In compliance with the Workplace Safety & Health Act, Workplace Safety & Health Committees are now required at any workplace with 20 or more workers. At fiscal year end, 20 such committees had been established in the Corporation.

Public safety awareness programs using print and electronic media continued throughout the year.

Because of the importance of the HVDC stations to the Manitoba Hydro system, the Corporation has embarked on a major program to improve fire prevention and protection systems for the HVDC Converter Stations. The facilities in the converter buildings are being upgraded to include halon protection systems, sprinkler systems, additional fire hose stations, smoke exhaust systems and fire retardant coatings for the cable systems.

## PCBs MANAGEMENT

A testing program is underway to identify apparatus filled with insulating oil which may contain quantities of PCBs (polychlorinated biphenyls). The first bulk quantity of insulating oil (100 000 litres) was successfully reprocessed to remove and destroy trace amounts of PCBs, allowing the oil to be re-used.

## INTERNAL REVIEWS

Operational review, a systematic review and reporting of specific operations, primarily of a managerial nature, continued in the past fiscal year. The review assesses how efficiently, effectively, and economically an organizational unit is achieving its mandate and goals in relation to corporate mission and strategy.

A Strategic Planning Committee is developing a new Corporate Strategic Plan to reflect changes in the business environment.

## EMPLOYEES

The current two-year agreement with the International Brotherhood of Electrical Workers, Local 2034, which expires on May 29, 1985 ,provided for wage reopener negotiations only for the second term. The wage reopener negotiations were successfully concluded in the two party process, with the signing of a Memorandum of Agreement on July 27, 1984. Negotiations for a renewal agreement have been scheduled to commence early in the new fiscal year.

The two-year agreement with the Canadian Union of Public Employees, Local 998, expired on December 26, 1984. Negotiations for a renewal agreement began during October 1984 and continued in the two party process at the end of the fiscal year.

The two-year agreement with the Association of Manitoba Hydro Staff and Supervisory Employees expired on March 21, 1985. Negotiations for a renewal agreement were scheduled to commence during April 1985.

Peak employment occurred in July 1984 at 3 805 compared with 3 778 in August 1983.

During the fiscal year, 72 employees retired. Long service employees were recognized during the year with 90 receiving 15-year service pins and 51 receiving 25-year pins. Twenty-eight employees attained 35 years of service.

*In whatever jobs they perform, Manitoba Hydro's employees are committed to the task of providing the utility's customers with reliable supplies of electrical energy. Our human resources are a source of strength to the Corporation; we hope you have enjoyed meeting some of the competent and dedicated members of our workforce on the pages of this report.*

# FINANCIAL SECTION


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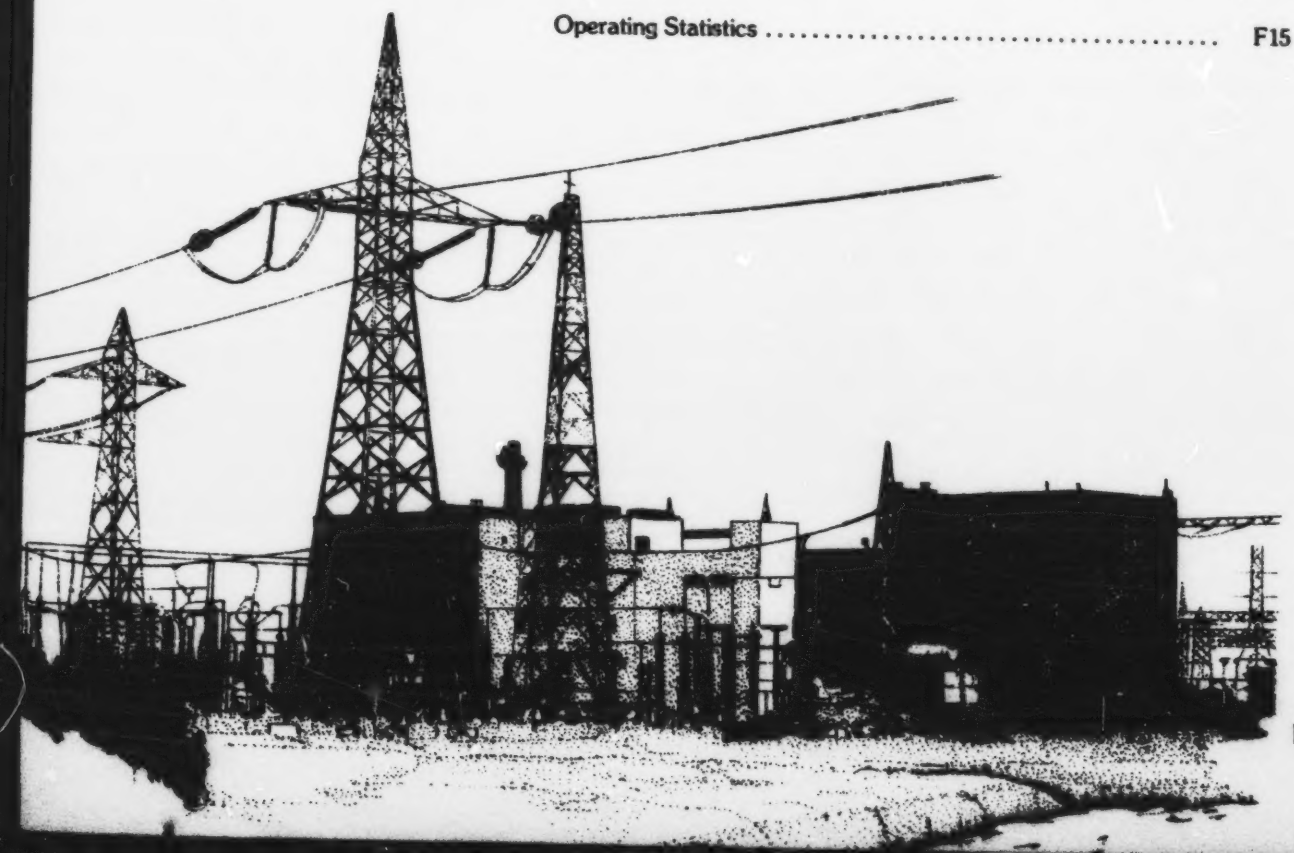


## FINANCIAL REVIEW

The excess of revenue over expense amounted to $11.1 million which represents an improvement over the $3.7 million excess of expense over revenue experienced in the 1983-84 fiscal year. The excess of revenue over expense follows four consecutive years during which expense exceeded revenue. The improvement reflects the results of an across-the-board rate increase of 7.9% which became effective April 1, 1984 and the continuing cost reduction effort on the part of all staff. Total reserves of the Corporation were increased to $93.6 million after restatement of opening balances resulting from retroactive implementation of changes in accounting policy.

### Revenue

Gross revenue from operations amounted to $506.4 million, an increase of 9.7% from the $461.5 million recorded in the previous year, despite a decrease in total generation from the integrated system of 3.1% or .682 billion kilowatt-hours to a total of 21.3 billion kilowatt-hours. Sales of electricity to customers within Manitoba increased 5.6% to 12.3 billion kilowatt-hours with increased consumption primarily in the residential and power sectors. The growth in provincial consumption combined with the rate increase produced a revenue increase of 13.5% to $397.5 million. Extraprovincial revenues decreased by $2.5 million to $103.2 million reflecting a combination of substantially higher unit selling prices and a decrease in extraprovincial kilowatt-hour sales of 15.6% to 5.8 billion kilowatt-hours resulting from reduced hydraulic generation.

### Expense

Total expenses were $495.3 million, an increase of $30.1 million over the previous year. Finance expense increased to $242.5 million mainly due to the refinancing of debt at higher interest rates and the cost of carrying new plant in service. Depreciation charges were $69.3 million. Operating and administrative costs increased by $8.3 million or 5.2% to $169.0 million. Approximately $5.0 million of the increase was attributable to the restoration of service and damage repairs mostly due to the April 1984 ice storm. The increase in operating and administrative costs would have been reduced to $3.3 million or 2.1% over 1983-84 if the storm damage costs were excluded. Operating and administrative costs include transmission line lease payments which were increased by $1.4 million. Other operating and administrative costs increased by $1.9 million or 1.2% reflecting continued control of operating expenditures. Fuel and power purchased increased by 54.9% or $5.1 million mainly due to increased thermal generation for export.

### Investment in New Plant

Additions to fixed assets for the year were $122.9 million, which is $29.6 million less than 1983-84. Capital expenditures were incurred on the direct current conversion system for the Nelson River transmission facilities, Limestone Generating Station (mainly for finance expense allocated to construction in progress) and for minor additions, modifications and service extensions throughout the province.

### Borrowings

The Corporation borrowed $61.1 million for the purpose of financing capital construction and to retire long-term debt. As at March 31, 1985, outstanding long-term debt (net of sinking fund) was $2 213.1 million.

## Purchasing

During the year, orders were placed for goods and services in the amount of $87.7 million, of which $48.3 million was for goods manufactured in Manitoba, or for services performed in Manitoba.

## Rate Increase

In January 1985, the Corporation announced a rate increase effective April 1, 1985 to produce a projected revenue increase of 5.0%.

## Energy Rate Stabilization Act

In accordance with the provisions of The Energy Rate Stabilization Act, the servicing costs associated with Manitoba Hydro's foreign long-term debt have been assumed by the Province of Manitoba and replaced with Canadian equivalent costs based on Canadian rates for similar terms as at the date the debt was incurred. The Province has confirmed to Manitoba Hydro that the net expenditures relating to the foreign debt sustained by the Province in the current year amounted to $17.5 million. The net amount is made up of the foreign debt costs which exceeded the respective Canadian equivalent costs in the amount of $36.1 million, reduced by $18.6 million of foreign debt costs which were less than the respective Canadian equivalent costs. The corresponding net expenditures for the previous year were $21.9 million.

## Sources of Revenue — 1984/85 — Distribution of Expenses

## MANAGEMENT REPORT

The financial statements of Manitoba Hydro have been prepared by management in accordance with accounting principles generally accepted in Canada. The financial statements have, in management's opinion, been properly prepared within the framework of the accounting principles set out in Note 1 to the financial statements. The financial information presented throughout this Report is consistent with the data presented in the financial statements.

Management maintains systems of internal accounting control in order to assure on a reasonable basis, the reliability of this financial information. These systems include formal policies and procedures and an organization providing for appropriate delegation of authority and segregation of responsibilities. The systems are monitored by our Internal Auditors who perform extensive tests and related procedures. Our independent auditors, whose report on their examination of the financial statements follows, also review our systems of internal accounting control in accordance with generally accepted auditing standards for the purpose of expressing their opinion on the financial statements.

Management is responsible for, and the Board has approved, all of the information in the Annual Report.

## AUDITORS' REPORT

We have examined the balance sheet of The Manitoba Hydro-Electric Board as at March 31, 1985 and the statements of operations, reserves and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Corporation as at March 31, 1985, and the results of its operations and the changes in its financial position for the year then ended in accordance with the accounting principles set out in Note 1 to the financial statements applied, after giving retroactive effect to the change in the method of foreign currency translation and the change in amortization of discount on sinking fund investments as explained in Note 7 to the financial statements on a basis consistent with that of the preceding year.

Peat, Marwick, Mitchell & Co.

CHARTERED ACCOUNTANTS

Winnipeg, Canada
June 5, 1985

## Statement of Operations

### FOR THE YEAR ENDED MARCH 31, 1985 (with 1984 figures for comparison)

| | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| **REVENUES** | | |
| Sale of power | | |
| Manitoba | $397 495 | $350 159 |
| Extraprovincial | 103 151 | 105 654 |
| Other revenue | 5 768 | 5 684 |
| | 506 414 | 461 497 |
| **EXPENSES** | | |
| Operating and administrative | 169 040 | 160 735 |
| Depreciation—plant | 69 339 | 66 294 |
| Fuel and power purchased | 14 392 | 9 289 |
| | 252 771 | 236 318 |
| Net revenue before finance expense | 253 643 | 225 179 |
| **FINANCE EXPENSE** | | |
| Interest on debt | 315 707 | 290 422 |
| Amortization of debt discount and expense | 3 209 | 3 216 |
| Finance expense allocated to construction | (39 324) | (31 487) |
| Investment income | (37 083) | (33 298) |
| | 242 509 | 228 853 |
| **NET REVENUE (EXPENSE) TRANSFERRED TO RESERVES** | $11 134 | $ (3 674) |

The accompanying notes are an integral part of the financial statements.

## Balance Sheet
## AS AT MARCH 31, 1985 (with 1984 figures for comparison)

### ASSETS

| | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| **ELECTRIC UTILITY PLANT (Note 2)** | | |
| In service | $3 173 197 | $3 030 182 |
| Less: Accumulated depreciation | 713 619 | 647 001 |
| | 2 459 578 | 2 383 181 |
| Construction in progress | 270 947 | 301 641 |
| | 2 730 525 | 2 684 822 |
| **INVESTMENTS (at cost)** | 1 999 | 2 012 |
| **CURRENT ASSETS** | | |
| Temporary investments | 1 655 | 87 000 |
| Accounts receivable | 56 302 | 49 439 |
| Accrued revenue | 17 772 | 15 238 |
| Interest receivable and accrued | 10 674 | 11 006 |
| Materials and supplies (at average cost) | 27 712 | 25 220 |
| Prepaid expenses | 1 084 | 1 146 |
| | 115 199 | 189 049 |
| **DEFERRED ASSETS (Note 3)** | 75 860 | 58 209 |
| | $2 923 583 | $2 934 092 |

Approved on behalf of the Board:

M. Ebison
Chairperson

Vice-Chairman

## LIABILITIES AND RESERVES

| | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| LONG-TERM DEBT (Note 4) | $2 213 115 | $2 404 657 |
| CURRENT LIABILITIES | | |
| Bank balances | 16 062 | 15 631 |
| Accounts payable and accrued liabilities | 36 436 | 39 236 |
| Notes payable (due within one year) | 178 859 | 133 774 |
| Contract holdbacks | 2 896 | 4 689 |
| Accrued interest | 88 072 | 86 997 |
| Current portion of long-term debt (Note 4) | 210 469 | 122 946 |
| | 532 794 | 403 273 |
| DEFERRED LIABILITIES | 12 169 | 9 961 |
| DEFERRED CREDITS (Note 5) | 71 911 | 37 848 |
| RESERVES (Note 6, 7) | 93 594 | 78 353 |
| | $2 923 583 | $2 934 092 |

The accompanying notes are an integral part of the financial statements.

## Statement of Reserves
**FOR THE YEAR ENDED MARCH 31, 1985 (with 1984 figures for comparison)**

| | 1985 | | | 1984 |
|---|---|---|---|---|
| | | | (thousands of dollars) | |
| | Contingency and General | Rate Stabilization | Total | Total |
| BALANCE - BEGINNING OF YEAR | | | | |
| As previously stated | $123 829 | $(45 476) | $78 353 | $82 027 |
| —Change in Accounting Policy | | | | |
| —Translation of foreign currencies | | | | |
| —Short term notes (Note 7a) | — | (6 460) | (6 460) | — |
| —Sinking fund investments (Note 7b) | — | 1 807 | 1 807 | — |
| —Change in Accounting Policy | | | | |
| —Amortization of discount on sinking fund investments (Note 7c) | — | 8 760 | 8 760 | — |
| As restated | 123 829 | (41 369) | 82 460 | 82 027 |
| Net revenue (expense) transferred from operations | — | 11 134 | 11 134 | (3 674) |
| BALANCE - END OF YEAR | $123 829 | $(30 235) | $ 93 594 | $78 353 |

The accompanying notes are an integral part of the financial statements.

## Statement of Changes in Financial Position
**FOR THE YEAR ENDED MARCH 31, 1985 (with 1984 figures for comparison)**

| | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| SOURCE OF FUNDS | | |
| From operations | | |
| Net revenue (expense) | $ 11 134 | $ (3 674) |
| Provision for depreciation—plant | 69 339 | 66 294 |
| Amortization of debt discount and expense | 3 209 | 3 216 |
| Other | 229 | 346 |
| | 83 911 | 66 182 |
| Proceeds from long-term debt | 61 002 | 198 234 |
| Contributions and advances in aid of construction, less refunds | 4 189 | 4 843 |
| Increase in deferred credits and the opening balance of reserves resulting from the changes in accounting policy (Note 7) | 38 038 | — |
| Other transactions—net | 2 370 | 2 497 |
| | 189 510 | 271 756 |
| APPLICATION OF FUNDS | | |
| Additions to fixed assets | 122 903 | 152 546 |
| Decrease in long-term debt | 171 614 | 125 665 |
| Increase in sinking fund investments resulting from the changes in accounting policy (Note 7) | 44 496 | — |
| Sinking fund payment | 38 755 | 37 637 |
| Deferred cost of matured forward exchange contracts | 15 111 | — |
| | 392 881 | 315 848 |
| DECREASE IN WORKING CAPITAL | $ 203 371 | $ 44 092 |

The accompanying notes are an integral part of the financial statements.

## Notes to the Financial Statements
## FOR THE YEAR ENDED MARCH 31, 1985

### NOTE 1—SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared in accordance with generally accepted accounting principles except for the accounting for pension costs as noted in d) below.

**a) Electric Utility Plant**

The electric utility plant is stated at cost which consists of contracted services, direct labour, material and expense, a proportionate share of overhead costs and interest applied at the effective rates incurred in financing construction. Finance expense is allocated to construction until a facility becomes operational or a decision is made to abandon, cancel or indefinitely defer construction. The cost of plant removed plus removal costs less salvage value is charged to accumulated depreciation.

Main facilities of major projects under construction become operational on a progressive basis. As such facilities become operational, related construction costs and a pro rata share of related common properties are transferred to plant in service. Once the transfer to plant in service is made, finance expense allocated to construction ceases and depreciation commences.

Depreciation is provided on a straight line basis using the following service lives for major assets:

| | |
|---|---|
| Hydro-electric generation | 67 years |
| Thermal-electric generation | 33 years |
| Transmission lines and stations | 35-50 years |
| Distribution lines | 30-35 years |

Depreciation of the transportation fleet amounting to $2 657 000 (1984 — $2 589 000) is included in the overall fleet cost which is allocated on a usage basis to capital and operating accounts and is therefore not included as part of the plant depreciation provision.

**b) Foreign Exchange:**

**Long-Term Debt**

Long-term debt payable in foreign currencies is recorded at Canadian dollar equivalents using the exchange rates prevailing at the time the debt was incurred.

The Energy Rate Stabilization Act which came into force April 1, 1979 provides for the Province of Manitoba to relieve the Corporation of the costs associated with the foreign debt of Manitoba Hydro by replacing them with Canadian equivalent costs based on Canadian rates for similar terms as at the date the debt was incurred. The Province of Manitoba has confirmed to the Corporation that had the Province of Manitoba not assumed the cost of foreign debt at April 1, 1979 the valuation of the long-term debt of the Corporation as at March 31, 1985 would have been increased by approximately $428 million (1984 - $358 million) when translated at the year end rates of exchange. The Province of Manitoba also confirmed that the net expenditures relating to the debt sustained by the Province in the current year amounted to $17.5 million (1984 - $21.9 million).

**Current Assets and Current Liabilities**

Current monetary assets and liabilities denominated in foreign currencies, excluding long-term debt payable within one year are translated into Canadian currency at rates of exchange prevailing at the date of the balance sheet. The unrealized exchange gains or losses together with realized exchange gains or losses are credited or charged to operations.

**Sinking Fund Investments**

Sinking fund investments denominated in foreign currencies are translated into Canadian currency at the rates of exchange prevailing at the date of the balance sheet, except where the investments have been hedged by the Minister of Finance of the Province of Manitoba, in which case the rate confirmed by the Province is used in the translation. The unrealized exchange gains or losses are amortized over the remaining life of the investment and together with realized exchange gains or losses are credited or charged to operations.

**c) Hedging Program**

To eliminate foreign exchange risk on United States revenues, the Corporation has fixed the foreign exchange rate for the conversion of future United States extraprovincial revenues to Canadian dollars until 1987-88, by the acquisition of forward exchange contracts. The appropriate portion of the deferred cost of matured foreign exchange contracts will be recognized with the related revenue in future years.

**d) Pensions:**

**Manitoba Civil Service Superannuation Fund**

In accordance with the provisions of the Manitoba Civil Service Superannuation Act, the Corporation contributes 50% of the pension disbursements made to retired employees. Such payments are charged to income as incurred and a provision is not made in the accounts to fund current or past service obligations of the Corporation to the Civil Service Superannuation Fund.

According to the formula contained in the actuarial report for the year ended December 31, 1983, Manitoba Hydro's unrecorded liability at December 31, 1984 as a result of the participation of employees under the Civil Service Superannuation Act was:

a) if no allowance is made for future increases in pension due to increases in the cost of living, $96 360 000 (1983 - $85 213 800).
b) if allowance is made for future increases in pension due to increases in the cost of living, $140 843 000 (1983 - $123 508 200).

**Manitoba Hydro Retirement Plan**

The Manitoba Hydro Retirement Plan is a defined benefit plan which continues to provide benefits to employees and pensioners in respect of service prior to the date each employee entered the Manitoba Civil Service Superannuation Fund. The actuarial report dated January 1985 indicates an unfunded liability as at July 1, 1984 of $6.3 million (1983 - $6.0 million) which is being funded and charged to operations over the next 15 years.

**e) Unamortized Debt Discount and Expense**

These costs are charged to income over the life of the respective issue.

**f) Discount on Sinking Fund Investments**

The Corporation records sinking fund investments at par value. The difference between the cost and the par value of the investments is recorded as a premium or discount and the resulting gain or loss is amortized over the remaining life of the investment or charged upon disposal to investment income.

**g) Unamortized Planning Studies**

These costs are charged to income over a fifteen year period.

**h) Unbilled Revenue**

Revenues include an estimate of energy delivered but not billed.

## NOTE 2 — FIXED ASSETS (at cost)

| | Fixed Assets In Service | | | Construction In Progress | 1985 Total | 1984 Total |
|---|---|---|---|---|---|---|
| | Original Cost | Accumulated Depreciation | Book Value | | | |
| | (thousands of dollars) | | | | | |
| Generation | $1 844 105 | $ 343 136 | $1 500 969 | $ 183 724 | $1 684 693 | $1 675 224 |
| Transmission | 206 015 | 55 376 | 149 639 | 1 494 | 151 133 | 158 309 |
| Substations | 398 630 | 127 766 | 470 864 | 67 497 | 538 361 | 510 388 |
| Distribution | 420 644 | 142 107 | 278 537 | 6 583 | 285 120 | 269 649 |
| Other | 104 803 | 45 234 | 59 569 | 11 649 | 71 218 | 71 252 |
| | $3 173 197 | $ 713 619 | $2 459 578 | $ 270 947 | $2 730 525 | $2 684 822 |

## NOTE 3—DEFERRED ASSETS

| | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| Unamortized bond discount and expense | $22 397 | $23 283 |
| Unamortized planning study costs | 34 626 | 30 683 |
| Deferred cost of matured forward exchange contracts | 15 111 | — |
| Other | 3 726 | 4 243 |
| | $75 860 | $58 209 |

## NOTE 4—LONG-TERM DEBT

The Corporation pays an annual sinking fund installment to the Minister of Finance of the Province of Manitoba as provided by The Manitoba Hydro Act of not less than 1% of the principal amount of the outstanding long-term debt on the preceding March 31, and 4% of the balance in the sinking fund at such date. Such installments would provide for the full retirement of a debt obligation only if the obligation was outstanding for forty-one years.

Income earned on sinking fund investments is remitted to the Corporation and is included with investment income for the year.

Manitoba Hydro's bonds are guaranteed by the Province of Manitoba.

Canadian equivalent coupon rates on long-term debt as established under the Energy Rate Stabilization Act as set out in Note 1b range from 4.84% to 17.74%. The weighted average coupon rate on the long-term debt outstanding at March 31, 1985 is 10.20% (1984 - 10.09%).

For the purpose of financing capital construction expenditures and refunding debt during the year, the Corporation received advances totalling $61.1 million from the Province of Manitoba as follows:

$57.2 million due June 6, 1994 with interest at 13.72%.

$3.4 million with interest at 13.00% and $0.5 million with interest at 12.625%, repayable in equal annual installments to March 31, 2015 under a Government of Canada loan agreement.

| Long-Term Debt: | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| Total long-term debt outstanding — | | |
| The Manitoba Hydro-Electric Board Bonds | $1 488 990 | $1 415 175 |
| Advances from the Province of Manitoba represented by debenture debt of the Province | 1 289 522 | 1 236 698 |
| Advances from the Province of Manitoba under a loan agreement between the Province and the Government of Canada | 145 679 | 141 069 |
| | 2 764 191 | 2 792 942 |
| Less: Sinking fund on deposit with the Minister of Finance | 340 687 | 265 339 |
| | 2 423 584 | 2 527 603 |
| Less: Long-term debt payments due within one year— Sinking fund installments and net maturities | 210 469 | 122 946 |
| | $2 213 115 | $2 404 657 |

**Debt Maturities:**

| | | Cash Requirements | | |
|---|---|---|---|---|
| Year Ending March 31 | Principal Amount of Maturities | Maturities Net of Sinking Fund | Annual Sinking Fund Installments | Total |
| | | (thousands of dollars) | | |
| 1986 | $ 200 226 | $ 170 771 | $ 39 698 | $ 210 469 |
| 1987 | 32 125 | 24 562 | 38 160 | 62 722 |
| 1988 | 143 796 | 106 232 | 39 062 | 145 294 |
| 1989 | 201 866 | 179 451 | 37 453 | 216 904 |
| 1990 | 180 654 | 155 726 | 36 036 | 191 762 |
| | $ 758 667 | $ 636 742 | $ 190 409 | $ 827 151 |
| 1991-1995 | 1 102 277 | 843 233 | 148 583 | 991 816 |
| 1996-2000 | 179 112 | 109 311 | 96 193 | 205 504 |
| 2001-2005 | 416 882 | 202 818 | 86 028 | 288 846 |
| 2006-2010 | 297 173 | 133 020 | 16 191 | 149 211 |
| 2011-2015 | 10 080 | 4 507 | 962 | 5 469 |
| | $2 764 191 | $1 929 631 | $ 538 366 | $2 467 997 |

## NOTE 5—DEFERRED CREDITS

| | 1985 | 1984 |
|---|---|---|
| | (thousands of dollars) | |
| Non refundable capital contributions | $39 176 | $37 477 |
| Unamortized sinking fund investment discount | 21 548 | — |
| Unamortized foreign exchange on sinking fund investments | 8 689 | — |
| Other | 2 537 | 371 |
| | $71 911 | $37 848 |

## NOTE 6—RESERVES

The Corporation maintains the following reserves:

**Contingency and General Reserve**
An amount calculated as a percentage of net interest expense at a rate as stipulated by The Manitoba Hydro-Electric Board, may be transferred annually to this reserve. A transfer was not made for the years ended March 31, 1985 and 1984.

**Rate Stabilization Reserve**
The net revenue or expense after provision for the contingency and general reserve is transferred annually to this reserve.

## NOTE 7—CHANGES IN ACCOUNTING POLICY

Effective April 1, 1984 the Corporation adopted on a retroactive basis the following changes in accounting policy. The financial statements have not been restated for comparative purposes for 1983-84. The amounts involved were not considered to be significant.

**a) Foreign Exchange Translation of Short Term Notes**

The Corporation adopted the recommendations of the Canadian Institute of Chartered Accountants for translation of foreign currency denominated short term notes as described in Note 1b. Prior to April 1, 1984 short term notes were translated into Canadian currency at the rate of exchange at the time of issue with the recognition of gains or losses occurring as realized.

This retroactive change in accounting policy resulted in a cumulative reduction to the opening balance of reserves of approximately $6.5 million.

**b) Foreign Exchange Translation of Sinking Fund Investments**

The Corporation adopted the recommendations of the Canadian Institute of Chartered Accountants for the translation of foreign currency denominated sinking fund investments as described in Note 1b. Prior to April 1, 1984 sinking fund investments were translated into Canadian currency at the rate of exchange at the time of purchase with the recognition of gains or losses occurring at maturity or disposal.

This retroactive change in accounting policy resulted in a cumulative increase in the opening balance of reserves of approximately $1.8 million.

**c) Discount on Sinking Fund Investments**

The Corporation adopted the method of accounting for sinking fund investments discount as described in Note 1f. Prior to April 1, 1984 the sinking fund investments were recorded at cost with the recognition of gains or losses occurring at maturity or disposal.

This retroactive change in accounting policy resulted in a cumulative increase in the opening balance of reserves of approximately $8.8 million.

## NOTE 8—COMMITMENTS

**a) Lease Commitments**

In accordance with a lease agreement entered into during 1966 between the Governments of Canada and Manitoba, direct current transmission facilities were constructed between the Kettle Generating Station and Winnipeg. The agreement provides for repayment by the Corporation of the capital cost with accrued interest at 5.625% over a term of forty-five years in accordance with a repayment schedule requiring substantially smaller payments during the earlier years. The schedule provides for payment of $12 500 000 for the year ended March 31, 1985 (1984 — $10 000 000) and for annual increases in payments of $2 500 000 for the years 1986 to 1989. The progressive increases result in a payment in 1989 of $22 500 000. Payments for the fiscal years 1990 to 2019 will be calculated as the equal annual payment required to amortize the outstanding balance over thirty years at 5.625%. In addition, on account of the related microwave communications system, a final payment of $206 000 was made for the year ended March 31, 1985 (1984 - $596 000). The unpaid balance of principal plus accrued interest for transmission and microwave facilities amounted to approximately $360 942 000 as at March 31, 1985 (1984 - $353 702 000).

The Corporation's policy is to charge the lease payments to operations in the period in which they become payable. This policy is consistent with the intent of the lease agreement of providing economic relief to ratepayers during the early years of the Nelson River development. This is evident when compared with a calculation of a charge in accordance with the C.I.C.A. recommendation on accounting for capital leases entered into subsequent to January 1, 1979, which indicates that an additional amount of approximately $12.1 million would have been charged to operations for the year and an additional net asset amount of approximately $187.8 million would have been recorded relating to the transmission facilities and microwave system.

**b) Mitigation - Northern Flood Agreement**

Manitoba Hydro is party to an agreement with the Government of Canada, the Province of Manitoba and the Northern Flood Committee Inc., which includes compensation and mitigation for the impact of the Churchill River Diversion and Lake Winnipeg Regulation projects. The total spent on compensation and mitigation during the year was $4.1 million (1984 - $5.4 million). These costs have been allocated to the respective projects.

An offer has been made in the amount of $30.3 million for a settlement of the majority of claims for resource loss or damage. There are other outstanding claims for unspecified amounts and for which the potential liability is not determinable.

**c) Construction Commitments**

Construction on Limestone Generating Station has been committed to provide for first power in 1990/91. The current forecasted cost of the new generating station is $2 520.5 million.

Other outstanding commitments, principally for construction, were approximately $45 352 000 (1984 - $44 697 000).

# Financial Statistics

*(in thousands of dollars)*

| | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 |
|---|---|---|---|---|---|---|---|---|---|---|
| **STATEMENT OF OPERATIONS** | | | | | | | | | | |
| Revenues | | | | | | | | | | |
| Residential and Farm | **168 977** | 146 054 | 126 684 | 123 629 | 115 364 | 117 161 | 105 999 | 86 902 | 71 811 | 55 316 |
| Power, General Service and Misc. | **198 692** | 174 707 | 151 203 | 154 579 | 135 064 | 132 762 | 118 795 | 100 720 | 85 526 | 70 801 |
| Winnipeg Hydro (Cost Sharing Agreement) | **29 826** | 29 398 | 27 180 | 33 146 | 26 682 | 25 435 | 18 865 | 17 910 | 16 073 | 10 026 |
| Extraprovincial | **103 151** | 105 654 | 105 411 | 72 384 | 81 965 | 95 965 | 82 055 | 34 634 | 17 383 | 20 841 |
| Other Revenue | **5 768** | 5 684 | 4 217 | 3 865 | 2 768 | 3 022 | 2 817 | 2 829 | 2 034 | 1 768 |
| | **506 414** | 461 497 | 414 695 | 387 603 | 361 843 | 374 345 | 328 531 | 242 995 | 192 827 | 158 752 |
| Expenses | | | | | | | | | | |
| Operating and Administrative | **169 040** | 160 735 | 150 078 | 129 413 | 114 398 | 93 746 | 81 525 | 72 385 | 62 617 | 52 763 |
| Depreciation | **69 339** | 66 294 | 61 718 | 60 127 | 57 793 | 53 313 | 43 963 | 35 610 | 30 103 | 25 683 |
| Fuel and Power Purchased | **14 392** | 9 289 | 8 192 | 16 711 | 9 973 | 5 592 | 3 985 | 22 695 | 28 179 | 5 879 |
| Finance Expense | **242 509** | 228 853 | 213 836 | 205 544 | 195 947 | 176 091 | 153 395 | 113 568 | 76 019 | 64 659 |
| | **495 280** | 465 171 | 433 824 | 411 795 | 378 111 | 328 742 | 282 868 | 244 258 | 196 918 | 148 984 |
| Net Revenues Transferred to (from) Reserves | **11 134** | (3 674) | (19 129) | (24 192) | (16 268) | 45 603 | 45 663 | (1 263) | (4 091) | 9 768 |
| **BALANCE SHEET** | | | | | | | | | | |
| Assets | | | | | | | | | | |
| Plant In Service | **3 173 197** | 3 030 182 | 2 945 435 | 2 891 325 | 2 808 938 | 2 659 268 | 2 376 777 | 1 814 239 | 1 461 030 | 1 237 092 |
| Less: Accumulated Depreciation | **713 619** | 647 001 | 584 534 | 524 720 | 469 158 | 413 720 | 363 462 | 321 187 | 288 084 | 260 950 |
| Construction in Progress | **270 947** | 301 641 | 272 013 | 202 544 | 188 792 | 244 175 | 399 277 | 765 897 | 799 464 | 680 195 |
| Current and Other Assets | **193 058** | 249 270 | 251 561 | 156 665 | 121 269 | 131 528 | 179 590 | 143 005 | 213 410 | 137 750 |
| | **2 923 583** | 2 934 092 | 2 884 475 | 2 725 814 | 2 649 841 | 2 621 251 | 2 592 182 | 2 401 954 | 2 185 820 | 1 794 087 |
| Liabilities and Equity | | | | | | | | | | |
| Long-Term Debt—net | **2 213 115** | 2 404 657 | 2 367 561 | 2 297 887 | 2 230 803 | 2 221 647 | 2 298 726 | 2 167 919 | 1 989 939 | 1 616 132 |
| Current and Other | **616 874** | 451 082 | 434 887 | 326 771 | 293 690 | 257 988 | 197 443 | 183 685 | 142 891 | 120 693 |
| Reserves | **93 594** | 78 353 | 82 027 | 101 156 | 125 348 | 141 616 | 96 013 | 50 350 | 52 990 | 57 262 |
| | **2 923 583** | 2 934 092 | 2 884 475 | 2 725 814 | 2 649 841 | 2 621 251 | 2 592 182 | 2 401 954 | 2 185 820 | 1 794 087 |
| **STATEMENT OF CHANGES IN FINANCIAL POSITION** | | | | | | | | | | |
| Sources of Funds | | | | | | | | | | |
| Funds from Operations | **87 643** | 66 182 | 48 317 | 42 085 | 47 251 | 104 442 | 93 993 | 38 229 | 29 000 | 38 333 |
| Proceeds from Long-Term Debt | **61 002** | 198 234 | 273 963 | 175 393 | 109 560 | 1 961 | 189 038 | 229 814 | 398 930 | 404 580 |
| Other | **40 865** | 7 340 | 4 726 | 3 752 | 10 097 | 3 791 | 4 204 | 4 580 | 2 150 | 2 447 |
| | **189 510** | 271 756 | 327 006 | 221 230 | 166 908 | 110 194 | 287 235 | 272 623 | 430 080 | 445 360 |
| Application of Funds | | | | | | | | | | |
| Additions to Fixed Assets | **122 903** | 152 546 | 128 956 | 103 954 | 99 634 | 132 703 | 199 625 | 323 918 | 347 774 | 347 314 |
| Decrease in Long-Term Debt | **216 112** | 125 665 | 172 840 | 75 387 | 70 100 | 47 600 | 31 777 | 31 014 | 10 390 | 2 843 |
| Sinking Fund Payment | **38 755** | 37 637 | 35 514 | 33 640 | 32 055 | 31 463 | 29 360 | 26 291 | 21 491 | 17 404 |
| Deferred Cost of Matured Forward Exchange Contracts | **15 111** | — | — | — | — | — | — | — | — | — |
| | **392 881** | 315 848 | 337 310 | 212 981 | 201 789 | 211 766 | 260 762 | 381 223 | 379 655 | 367 561 |
| Increase (Decrease) in Working Capital | **(203 371)** | (44 092) | (10 304) | 8 249 | (34 881) | (101 572) | 26 473 | (108 600) | 50 425 | 77 799 |

## Operating Statistics

| | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 |
|---|---|---|---|---|---|---|---|---|---|---|
| INTEGRATED SYSTEM— MANITOBA HYDRO AND WINNIPEG HYDRO | | | | | | | | | | |
| Installed Winter Capability (000 kW) | 4 091 | 4 091 | 4 091 | 4 091 | 4 091 | 4 091 | 3 678 | 3 202 | 2 985 | 2 985 |
| Manitoba Firm Peak Demand (000 kW)* | 2 952 | 2 889 | 2 543 | 2 735 | 2 575 | 2 519 | 2 419 | 2 445 | 2 356 | 2 239 |
| Percentage change | +2.2 | +13.6 | -7.0 | +6.2 | +2.2 | +4.1 | -1.1 | +3.8 | +5.2 | +8.6 |
| Energy Supplied (000 000 kW.h) | | | | | | | | | | |
| Manitoba Hydro Generation | 20 261 | 20 967 | 20 538 | 17 372 | 17 975 | 19 690 | 17 600 | 12 669 | 12 739 | 13 732 |
| Winnipeg Hydro Generation | 1 066 | 1 042 | 1 158 | 813 | 848 | 1 111 | 1 153 | 766 | 828 | 1 104 |
| Energy Purchased | | | | | | | | | | |
| Hudson Bay Mining and Smelting | 0 | 0 | 0 | 0 | 38 | 28 | 4 | 93 | 87 | 27 |
| Ontario | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 3 |
| Saskatchewan | 61 | 64 | 171 | 179 | 15 | 1 | 1 | 5 | 3 | 4 |
| United States | 20 | 7 | 43 | 297 | 203 | 0 | 4 | 721 | 528 | 27 |
| Total Generated and Purchased | 21 408 | 22 080 | 21 810 | 18 661 | 19 079 | 20 830 | 18 762 | 14 275 | 14 185 | 14 897 |
| Firm Energy Supplied for Manitoba Integrated System* (000 000 kW.h) | 14 993 | 14 388 | 13 260 | 13 527 | 12 529 | 12 797 | 12 483 | 11 962 | 11 768 | 11 430 |
| Isolated Systems Generated and Purchased (000 000 kW.h) | 47 | 48 | 47 | 46 | 47 | 50 | 53 | 52 | 53 | 53 |
| Total Integrated and Isolated Systems (000 000 kW.h) | 15 040 | 14 436 | 13 307 | 13 573 | 12 576 | 12 847 | 12 536 | 12 014 | 11 821 | 11 483 |
| Percentage Change | +4.2 | +8.5 | -2.0 | +7.9 | -2.1 | +2.5 | +4.3 | +1.6 | +2.9 | +5.2 |
| MANITOBA HYDRO SYSTEM | | | | | | | | | | |
| Energy Sold (000 000 kW.h) | | | | | | | | | | |
| Residential and Farm | 4 520 | 4 205 | 3 922 | 3 765 | 3 536 | 3 600 | 3 616 | 3 387 | 3 283 | 3 007 |
| Power, General Service and Misc. | 6 590 | 6 263 | 5 726 | 6 068 | 5 587 | 5 585 | 5 328 | 5 308 | 5 297 | 5 256 |
| Extraprovincial | | | | | | | | | | |
| Ontario | 795 | 1 153 | 850 | 1 089 | 1 616 | 1 787 | 1 439 | 773 | 1 582 | 1 702 |
| Saskatchewan | 233 | 269 | 231 | 342 | 968 | 1 378 | 530 | 364 | 408 | 493 |
| United States | 4 739 | 5 409 | 6 533 | 3 150 | 3 299 | 3 966 | 3 718 | 1 004 | 534 | 1 031 |
| Net Transfer to Winnipeg Hydro (000 000 kW.h) | 1 154 | 1 143 | 930 | 1 245 | 1 163 | 977 | 918 | 1 191 | 1 107 | 816 |
| Number of Customers | | | | | | | | | | |
| Residential and Farm | 299 611 | 293 620 | 288 076 | 285 175 | 281 479 | 279 080 | 273 779 | 262 877 | 253 910 | 245 129 |
| Power, General Service and Misc. | 40 547 | 39 965 | 39 766 | 39 804 | 39 629 | 39 129 | 38 840 | 38 496 | 38 027 | 37 957 |
| Peak Number of Employees | 3 805 | 3 778 | 3 859 | 3 850 | 3 899 | 4 164 | 4 411 | 4 826 | 4 865 | 4 993 |

*Corrected by System Losses applicable to Extraprovincial Sales*

## Manitoba Hydro Generating Stations and Capacities

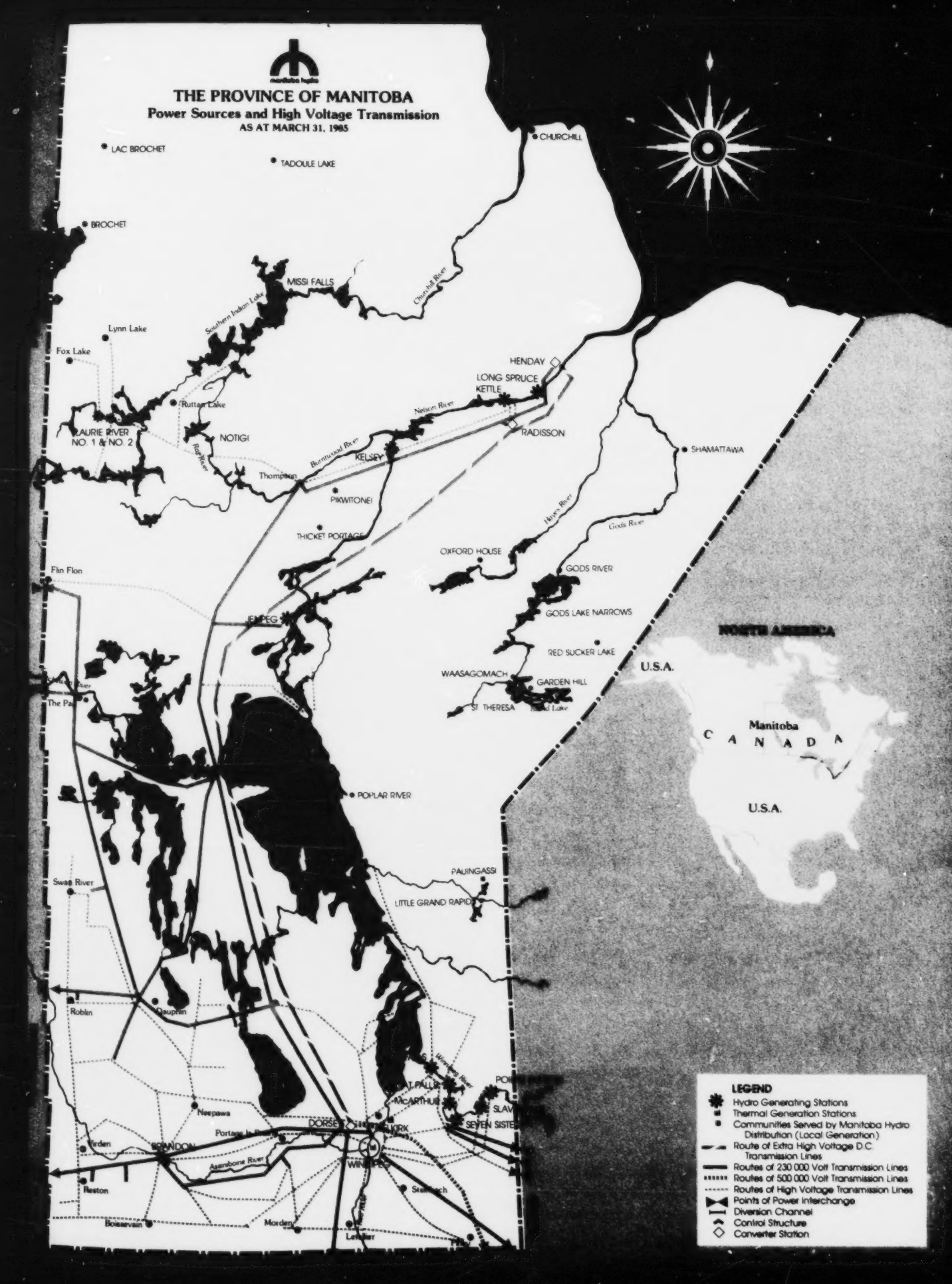
**For the Year Ended March 31, 1985 (Normal Winter Capability)**

**INTERCONNECTED CAPABILITIES**

| | STATION | LOCATION | No. of Units | Winter Capacity in Kilowatts |
|---|---|---|---|---|
| **HYDRAULIC:** | Great Falls | Winnipeg River | 6 | 132 000 |
| | Seven Sisters | Winnipeg River | 6 | 150 000 |
| | Pine Falls | Winnipeg River | 6 | 82 000 |
| | McArthur Falls | Winnipeg River | 8 | 56 000 |
| | Grand Rapids | Saskatchewan River | 4 | 472 000 |
| | Kelsey | Nelson River | 7 | 224 000 |
| | Kettle | Nelson River | 12 | 1 272 000 |
| | Jenpeg | Nelson River | 6 | 126 000 |
| | Long Spruce | Nelson River | 10 | 980 000 |
| | Laurie River (2) | Laurie River | 3 | 10 000 |
| | TOTAL HYDRAULIC | | | 3 504 000 |
| **THERMAL:** | Brandon | | 5 | 237 000 |
| | Selkirk | | 2 | 132 000 |
| | TOTAL THERMAL | | | 369 000 |
| **GAS TURBINE:** | Selkirk | | 2 | 25 000 |
| **DIESEL:** | The Pas | | 3 | 2 750 |
| | TOTAL | | | 3 900 750 |

**ISOLATED CAPACITIES**

| | | |
|---|---|---|
| **DIESEL:** | Brochet | 650 |
| | Churchill | 11 248 |
| | Garden Hill | 1 600 |
| | Gods Lake Narrows | 1 400 |
| | Gods River | 350 |
| | Little Grand Rapids | 425 |
| | Lac Brochet | 525 |
| | Oxford House | 1 100 |
| | Pauingassi | 300 |
| | Pikwitonei | 350 |
| | Poplar River | 650 |
| | Red Sucker Lake | 525 |
| | St. Theresa | 1 475 |
| | Shamattawa | 525 |
| | Tadoule Lake | 600 |
| | Thicket Portage | 300 |
| | Wasagomach | 1 100 |
| | TOTAL | 23 123 |
| **TOTAL GENERATING CAPACITY** | | **3 923 873** |


THE PROVINCE OF MANITOBA
Power Sources and High Voltage Transmission
AS AT MARCH 31, 1985
LAC BROCHET
TADOULE LAKE
CHURCHILL
BROCHET
MISSI FALLS
Churchill River
Southern Indian Lake
Lynn Lake
Fox Lake
HENDAY
LONG SPRUCE
KETTLE
Nelson River
Ruttan Lake
LAURIE RIVER
NO. 1 & NO. 2
NOTIGI
Rat River
Burntwood River
KELSEY
RADISSON
SHAMATTAWA
Thompson
PIKWITONEI
Hayes River
Gods River
THICKET PORTAGE
OXFORD HOUSE
GODS RIVER
Flin Flon
GODS LAKE NARROWS
RED SUCKER LAKE
WAASAGOMACH
GARDEN HILL
ST THERESA
NORTH AMERICA
U.S.A.
Manitoba
C A N A D A
U.S.A.
POPLAR RIVER
PAUINGASSI
LITTLE GRAND RAPIDS
Swan River
Roblin
Dauphin
Neepawa
Portage la Prairie
Arden
BRANDON
Assiniboine River
Reston
Boissevain
Morden
Letellier
WINNIPEG
Winnipeg River
McARTHUR
SEVEN SISTERS
Steinbach
LEGEND
Hydro Generating Stations
Thermal Generation Stations
Communities Served by Manitoba Hydro Distribution (Local Generation)
Route of Extra High Voltage D.C. Transmission Lines
Routes of 230 000 Volt Transmission Lines
Routes of 500 000 Volt Transmission Lines
Routes of High Voltage Transmission Lines
Points of Power Interchange
Diversion Channel
Control Structure
Converter Station